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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/754,805	01/04/2001	Harold R. Blomquist	TRW(VSSIM)4910	3482

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EXAMINER

MILLER, EDWARD A

ART UNIT	PAPER NUMBER
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3641

DATE MAILED: 07/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/754,805

Applicant(s)

BLOMQUIST, HAROLD R.

Examiner

Edward A. Miller

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 June 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Applicant's submission filed on June 3, 2003 has been entered.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schotthoefer et al., in view of Meyer, Lauritzen et al., Brocart, Leneveu et al., and Boileau et al.

Schotthoefer et al., in the Abstract, e.g., teach a known air bag inflating, occupant protection apparatus. This apparatus includes, in Figure 1, a squib portion 42, which comprises the ignition material for gas generating material 18. This is further described in col. 4, lines 1-17. It is notoriously well known that squibs include an explosive composition as the ignition material which is ignited by the (exploding) bridge wire. Should applicant question this, he may consult the definition for class 102, subclass 202.7, indented under 202.5, "electrical primers or ignitors":

"202.7 Having an exploding bridgewire: This subclass is indented under subclass 202.5. Subject matter wherein the electrical device is an electrically conductive wire or semiconductor which vaporizes when electrically energized and produces a shock wave of high pressure or high temperature which causes the composition or charge to detonate, deflagrate or burn."

The gas generating material 18 is taught at col. 4, line 13 to include single base nitrocellulose. This is the basic requirement for applicant's invention as claimed. However, this does not teach the use of a stabilizer. Meyer shows on page 132 that single base powder, e.g. nitrocellulose powder, is nitrocellulose, which may include additives, particularly stabilizers, and which, about 3 lines prior to the Nitroglycerine powder (double base powder), specifically and additionally teaches Centralit as

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an exterior coating. On page 248, Centralit is a urea stabilizer formed in each kind from an aromatic aminewhere the amine forms a nitrogen portion of the urea. On page 238, single base powder has a stabilizer, but there is no teaching of how much one would use. Beyond the obvious answer of one would use enough to accomplish the required stabilization, Lauritzen et al. teach in col. 6, lines 46-55, that when an auto safety apparatus contain nitrocellulose, that is single base powder, one may use ethyl centralite stabilizer, and that the amount used relates to the temperature contemplated, in amounts up to 4%. That Lauritzen uses the single base powder for an igniter, does not lessen the factual or objective truth of the teaching relative to the temperature behavior of nitrocellulose.

Regardless of use, nitrocellulose in an airbag apparatus is subject to the same temperatures, whether as the ignition material or as the gas generating material. The apparatus is located within the vehicle, and subject to summer sun and potential use in hot, desert locations throughout the world. Brocart teaches compositions containing mostly nitrocellulose without energetic plasticizers, which may have 3% centralite stabilizer, in col. 3, "Table I", the third composition. Leneveu et al., at col. 3, lines 45-55, uses 2% centralite for nitrocellulose powder, with an added spray of a small amount of a different stabilizer. Boileau et al. teach at col. 1, lines 30-36, together with the heat degradation teaching in col. 4, lines 60+, including "Table 1", that heat degrades the amount of stabilizer remaining. This is another way of looking at the teaching of Lauritzen et al., that one may vary the amount of stabilizer depending on the heat expected, and the length of time. Although a different but generally equivalent stabilizer is used in Boileau et al., the invention there involves a different method of stabilizing, using zinc carbonate added with the usual stabilizer. Further, in Lauritzen et al., col. 3, the parameters of time or aging resistance with single base nitrocellulose powders when used in various auto safety devices are discussed at lines 3-15 and 34-54. Thus, it is perfectly clear that the stabilizers and amounts used are result effective parameters. It is well settled that

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optimizing a result effective variable is well within the expected ability of a person or ordinary skill in the subject art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980), *In re Aller*, 220 F.2d 454, 105 USPQ 233 (CCPA 1955).


Applicant's arguments are not persuasive of error. The amounts of stabilizer, and the specific stabilizer, would obviously be varied by one of ordinary skill in the art to obtain suitable results. Further, there are no unexpected results that would relate to what the invention as claimed is, in view of the claims that are still broad. In this, although Brocart adds, for example, a small amount of cellulose fibers, and Boileau et al. adds a small amount of metal carbonate, there is nothing in the claims to exclude this, or to effect any unexpected result.

4. Any inquiry concerning either this or an earlier communication from the Examiner should be directed to Examiner Edward A. Miller at (703) 306-4163. Examiner Miller may normally be reached Monday-Thursday, from 10 AM to 7 PM.

If attempts to reach Examiner Miller by telephone are unsuccessful, his supervisor Mr. Carone can be reached at (703) 306-4198. The Group fax number is (703) 305-7687.

If there is no answer, or for any inquiry of a general nature or relating to the application status, please call the Group receptionist at (703) 308-1113.

Miller/em
June 29, 2003



EDWARD A. MILLER
PRIMARY EXAMINER